FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OIVID AFFROVAL | | | | | | | | | |
|--------------------------|----------|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-028 | | | | | | | | |
| Estimated average burden | | | | | | | | | |

5. Relationship of Reporting Person(s) to Issuer

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b)

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

2. Issuer Name and Ticker or Trading Symbol

| OMB APPRO | JVAL | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | |
| Estimated average burden | | | | | | | |
| hours per response: | 0.5 | | | | | | |

| Name and Address of Reporting Person* O'NEIL PATRICK R. | | | | | | 2. Issuer Name and Ticker or Trading Symbol ISIS PHARMACEUTICALS INC [ISIS] | | | | | | | | | | ck all applic Directo | ationship of Reporting call applicable) Director Officer (give title | | on(s) to Iss 10% Ov Other (s | vner | |
|---|---|--|--|---------------|---|--|---|------------|-------|--|---------------|--|---|---------------------------------|-----------------------|---|--|-------------------------------------|--|--|--|
| (Last) (First) (Middle) C/O ISIS PHARMACEUTICALS, INC. | | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 02/03/2014 | | | | | | | | | | | below) | below) | | |
| 2855 GA | ZELLE CO | OURT | | If Ame | endme | nt Date | of (| Original F | =ilec | I (Month/Da | 6 In | 6. Individual or Joint/Group Filing (Check Applicable | | | | | | | | | |
| (Street) | | | | | | If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | | | | | | | |
| CARLSBAD CA 92010 | | | | | | | | | | | | | | | | Form filed by More than One Reporting | | | | | |
| (City) | (S | tate) | (Zip) | | _ | | | | | | | | | | Persor | | | | | | |
| | | Tab | le I - No | n-Deri | vativ | e Se | curi | ties A | cqı | uired, | Dis | posed o | f, or B | enef | iciall | y Owned | | | | | |
| Date | | | | | action Day/Yea | ar) E | 2A. Deemed Execution Date, f any (Month/Day/Year) | | •, | 3. Transaction Code (Instr. r) 8) | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 | | 4 and 5) Secur Benef Owne | | es ally Following | Form (D) o | n: Direct r Indirect estr. 4) | Ownership | | |
| | | | | | | | | | Ī | Code | v | Amount | (A) o | P | rice | Reported Transaction(s) (Instr. 3 and 4) | | | | (Instr. 4) | |
| Common Stock 02/03/2 | | | | | | | 2014 02/03/2014 | | | M ⁽¹⁾ | | 1,500(1 |) A | 1 | \$11.27 | 4,850 | | | D | | |
| Common Stock 02/03/2 | | | | | | 2014 02/03/2014 | | | 1 | S ⁽¹⁾ | | 1,500(1 |) D | \$ | \$50.451 3, | | ,350 | | D | | |
| | | - | Table II - | | | | | | | | | osed of, | | | | Owned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deem Executior if any (Month/Da | ed n Date, | 4. Transaction Code (Instr. 8) | | 5. Number | | 6. I | Date Exe opiration I lonth/Day | rcisa Date | able and | 7. Title and Amount of Securities Underlying Derivative Sec (Instr. 3 and 4) | | curity | 8. Price of Derivative Security (Instr. 5) | 9. Numbe derivative Securities Beneficial Owned Following Reported Transactie (Instr. 4) | e s lly | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | | ate kercisable | | Expiration Date | Title | or Nu of | nount mber ares | | | | | | |
| Employee Stock Option (right to buy) | \$11.27 | 02/03/2014 | 02/03/: | 2014 | M | | | 1,500 | 01/ | ./04/2014 ⁽ | 2) | 01/03/2017 | Common Stock | 1, | 500 | \$0 | 370 | | D | | |

Explanation of Responses:

- 1. Acquired as a result of exercising a stock option pursuant to a Rule 10b5-1 Trading Plan. The purchase and sale reported on this Form 4 was effective pursuant to Rule 10b5-1 Trading Plan adopted by the reporting person on 1/2/2014
- 2. Grant of 1/4/10 to reporting person of stock options under the Isis Pharmacueticals, Inc. 1989 Stock Option Plan. 25% of the shares subject to the option vested and became exercisable on 1/4/11. Thereafter, the remaining shares subject to the option vest and become exercisable in 36 equal monthly installments, at the rate of 4,350 shares per year. Following this transaction, the option was exercisable as to 370 on

Remarks:

Patrick R. O'Neil

02/05/2014

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.